Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 22-12-2025 **Time:** 01:00pm – 04:00pm

School: SOE	**Program:** Civil/PET/MEC	
Course Code: MGT2015	**Course Name:** Engineering Economics	
Semester: V	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**
Marks	**12**	**34**	**33**	**21**

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks. **10Q x 2M=20M**

1.	Identify the difference between microeconomics and macroeconomics.	**2 Marks**	**L1**	**CO1**
2.	State the Law of Demand.	**2 Marks**	**L1**	**CO2**
3.	State the meaning of Equilibrium Price.	**2 Marks**	**L1**	**CO2**
4.	Define a Production Function.	**2 Marks**	**L1**	**CO3**
5.	Define Fixed Cost and Variable Cost.	**2 Marks**	**L1**	**CO3**
6.	State the formula for calculating the Break-Even Point in physical units.	**2 Marks**	**L1**	**CO3**
7.	State the meaning of the short run and the long run in economics.	**2 Marks**	**L1**	**CO3**
8.	Define the Payback Period.	**2 Marks**	**L1**	**CO4**
9.	Outline the meaning of Future Value (FV).	**2 Marks**	**L1**	**CO4**
10.	Define depreciation.	**2 Marks**	**L1**	**CO4**

Part B

Answer the Questions. **Total Marks 80M**

11.	**a.**	Discuss the role of Engineering Economics design making process.	**10 Marks**	**L2**	**CO1**
	b.	Explain the six important stages of decision-making process.		**L2**	**CO1**
	c.	Explain with examples of each stage of decision-making process.		**L2**	**CO1**
		Or			
12.	**a.**	Explain the concept of Engineering economics.	**10 Marks**	**L2**	**CO1**
	b.	Discuss the Principles of Engineering Economics with examples.		**L2**	**CO1**
	c.	Examine the Principles and its application in business field.		**L4**	**CO1**

13.	**a.**	Calculate price elasticity of demand: when price increases from ₹20 to ₹24 and demand falls from 100 units to 80 units.	**10 Marks**	**L3**	**CO2**
	b.	The price of a good decrease from Rs. 6 to Rs. 4 and qty. demanded increases from 10 to 15 units. Find the price elasticity.		**L3**	**CO2**
	c.	Suppose the price of a good decrease from Rs. 100 to Rs. 50 and qty. demanded increases from 30 to 60 units. Find the price elasticity.		**L3**	**CO2**
		Or			
14.	**a.**	Explain Income elasticity with formula.	**10 Marks**	**L2**	**CO2**
	b.	Discuss the five types of Income elasticity.		**L2**	**CO2**
	c.	Explain the types of income elasticity with graphical presentation.		**L3**	**CO2**

15.	**a.**	Explain the Law of Variable Proportions with stages.	**10 Marks**	**L2**	**CO3**
	b.	Present three stages in graph.		**L3**	**CO3**
	c.	Explain AP, MP and TP with formula.		**L2**	**CO3**
		Or			

16.	**a.**	A manufacturing firm Production cost details given below **Output (Q)** | **TFC** | **TC** 0 | 120 | 120 1 | 120 | 180 2 | 120 | 200 3 | 120 | 210 4 | 120 | 225 5 | 120 | 260 6 | 120 | 330	**10 Marks**	**L3**	**CO3**
	b.	Calculate: TVC, AVC, and MC		**L3**	**CO3**
	c.	Calculate MC, AC and AFC		**L3**	**CO3**

17.	**a.**	Kumar deposits FVA of Rs.6000 at the end of every year for 5 years and the deposit earns compound interest at 12% per annum. Calculate how much money he will have at the end of five years.	**15 Marks**	**L3**	**CO4**
	b.	Indian bank pays 12% interest rate compounded quarterly, if Rs. 10000 is made as an initial deposit, how much it will be at end of 5th year of future value.		**L3**	**CO4**
	c.	Calculate the future sum of money if it is invested at 10% interest rate compounded annually for four years of Rs.25000		**L3**	**CO4**
		Or			
18.	**a.**	Calculate Discounted Pay-back period **Year** | **Project A cash inflows** | **Project B cash inflows** 0 | (2,00,000) | (2,00,000) 1 | 35,000 | 2,18,000 2 | 80,000 | 10,000 3 | 55,000 | 10,000 4 | 75,000 | 4,000 5 | 20,000 | 3,000	**15 Marks**	**L3**	**CO4**

	b.	Calculate Net Present Value for the following two Projects.		**L3**	**CO4**
	c.	The firm anticipates its cost of capital to be 10%. Suggest which Project is profitable		**L3**	**CO4**

19.	**a.**	M/s. Gayatri Engineering furnishes the following information. On the basis of the information Annual Sales 20,000 units Selling Price Rs. 8.00 VC - Rs.6 TFC - 60,000 Find BEP in physical units and in terms of sales value in rupees.	**15 Marks**	**L3**	**CO3**
	b.	Show the amount of Variable Cost at BEP, CR and CM		**L3**	**CO3**
	c.	Profit made by the company at 20,000 units when the selling price is increased to 10 rupees find the profit amount.		**L3**	**CO3**
		Or			
20.	**a.**	Krishna company Ltd. Has the following details: Fixed cost = Rs.40,000,00 Variable Cost per unit = Rs.300 Selling price per unit = Rs. 500 Find Break even sales quantity.	**15 Marks**	**L3**	**CO3**
	b.	Find BEP in terms of sales value in rupees.		**L3**	**CO3**
	c.	If the actual production quantity is 1,20,000 find the Contribution and Margin of safety.		**L3**	**CO3**

21.	**a.**	Explain the Price Elasticity of Demand with formula.	**20 Marks**	**L2**	**CO2**
	b.	Explain the types of Price elasticity.		**L2**	**CO2**
	c.	Discuss types Price elasticity with neat graph.		**L2**	**CO2**
		Or			
22.	**a.**	Discuss the Law of demand and assumptions.	**20 Marks**	**L2**	**CO2**
	b.	Explain the determinants of demand		**L2**	**CO2**
	c.	Explain the Law of demand with diagram and explanation.		**L2**	**CO2**